

REMARKS

Claims 1 and 2 are all the claims pending in the application as claim 3 is hereby canceled by this amendment without prejudice or disclaimer.

Substitute Specification

Applicant submits herewith this Amendment, a Substitute Specification under 37 C.F.R. § 1.125. Applicant submits that the Substitute Specification includes no new matter.

Specification Objection

The Examiner objected to the Specification due to a lack of section headings. Applicants request that the Examiner withdraw this objection due to the self-explanatory amendments made and submitted in the Substitute Specification.

Claim Rejections - 35 U.S.C. § 112

The Examiner rejected claims 1-3 under § 112, second paragraph as being indefinite. Applicants respectfully request that the Examiner withdraw this rejection on light of the self-explanatory claim amendments submitted with this Amendment.

Claim Rejections - 35 U.S.C. § 102(e)

The Examiner rejected claims 1 and 2 under § 102(e) as being anticipated by Kollberg et al. (US 6,494,249; "Kollberg"). Applicants respectfully traverse this rejection because Kollberg fails to disclose, at least: (1) providing a nozzle with lateral outlet ports that face short walls of the continuous casting mold; and (2) a portion of the linear inductor source generating the

magnetic field traveling horizontally in a direction going from the nozzle toward each short mold wall; as recited in claim 1.

In contrast to this recited feature of Applicants' claim 1, Kollberg discloses a flow of metal which enters the mold through side ports in a submerged nozzle wherein the flow from the ports hits the narrow side of the mold. (col. 8, lines 55-60; *see* FIGS. 1-3) With reference to FIG. 1 of Kollberg, the flow is only shown leaving side ports that face the narrow side mold plates 11, 12. (col. 8, lines 25-28) These narrow side mold plates correspond to the long walls, not the short walls of Applicants' claim. Alternatively, Kollberg discloses supplying the hot metal through a free tapping jet (i.e., no lateral outlet ports). (col. 8, lines 34-36) In no case does Kollberg disclose providing a lateral outlet port that faces the short walls or long side mold plates.

Additionally, Kollberg discloses inductors generating a static magnetic or slightly pulsatory magnetic field, but fixed in space. (col. 4, lines 17-18). In contrast, claim 1 recites, a portion of the linear inductor source generating the magnetic field traveling horizontally. No portion of Kollberg discusses or discloses any movement or traveling of the magnetic field source. Furthermore, no portion of Kollberg discloses a traveling direction going from the nozzle toward each short wall.

Thus, Applicants respectfully submit that claim 1 is allowable over Kollberg for at least these reasons. Furthermore, Applicant submits that claim 3 is allowable, at least, by virtue of its dependency.

Claim Rejections - 35 U.S.C. § 103(a)

The Examiner rejected claims 1-3 under § 103(a) as being unpatentable over Kollberg in view of either Alberny et al. (US 4,040,467; “Alberny”) or Kunstreich et al. (US 6,164,365; “Kunstreich”). Applicants respectfully traverse this rejection because neither Kollberg, Kunstreich, nor Alberny, or any combination thereof teach or suggest, a portion of the linear inductor source generating the magnetic field traveling horizontally in a direction going from the nozzle toward each short wall.

As discussed above, Kollberg does not disclose this feature. Furthermore, neither Alberny nor Kunstreich compensate for this deficiency of Kollberg. Specifically, Alberny teaches that the magnetic field moves upwardly, not horizontally, along each of walls 7 and serves to displace the metal adjacent to this wall. Thus, in Alberny, the magnetic field sweeps upwardly, and not horizontally as recited. (col. 5, lines 50-55).

Regarding Kunstreich, this reference explicitly discloses an inductive device that is “modified to that it no longer produces a moving magnetic field but a permanent stationary field which is located at a chosen point on the conductor.” (col. 5, line 67 – col. 6, line 3). Thus, Kunstreich does not compensate for the above noted deficiency of Kollberg as discussed above regarding the failure to disclose “a portion of the linear inductor source generating the magnetic field traveling horizontally in a direction going from the nozzle toward each short wall.”

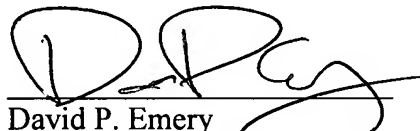
Thus, Applicants submit that because neither Kunstreich nor Alberny compensate for the above noted deficiency of Kollberg, claim 1 is allowable over the applied combinations. Furthermore, Applicants submit that claim 2 is allowable, at least, by virtue of its dependency.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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